BUILDCHECK

Report in Accordance with
BS EN ISO 10077-1:2006

Thermal Performance of Windows, Doors & Shutters

Calculation of Thermal Transmittance
Part 1: Simplified Method

CONFIDENTIAL

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Prepared for:	Tim Costello Profile Developments Glin County Limerick
Prepared by:	Michael Handley

1 Introduction

This document details the thermal performance of the Profile Developments Unglazed Palladio Composite Door which was commissioned by Mike O'Sullivan of Profile Developments. The frame profile results detailed below are provided from methods contained in BS EN ISO 10077-1:2006 by computer simulation using LBL THERM 5.2 software and validated against proofs in Annex D of BS EN ISO 10077-2:2003

The Palladio Doorset in this analysis measures 974 mm x 2047 mm.

2 Summary of Results

2.1 Frame thermal transmittance (in accordance with BS EN ISO 10077-1:2006)

Frame Profile	Frame Thermal Transmittance (U_f)
Head & Cill	1.4 W/(m²·K)
Jamb	1.4 W/(m²·K)

2.2 Linear thermal transmittance (in accordance with BS EN ISO 10077-1:2006)

Frame Profile	Linear Thermal Transmittance (ψ)
Head & Cill	0.027 W/(m·K)
Jamb	0.026 W/(m·K)

2.3 Centre pane U-Value of glazing calculated in accordance with BS EN 673:1998

Door Panel	Centre panel U-value (U_g)
Nominal dimensions 65mm door slab consisting of 1.2mm ABS skin to each side of Glass Reinforced Polyurethane Foam monocoque with 5.5mm outer thickness each side and webbing through it's centre.	0.57 W/m²K

2.5 U-Value thermal performance of the door (U_W) in accordance with EN ISO 10077-1:2006 is:

0.79 W/m²K

All profile and PSI calculations are in accordance with BS EN ISO 10077-2:2003

3 Authorisation

	Issued by:
Signature:	
Name:	Michael Handley
Title:	Senior Engineer